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12 de julio de 2012

Lcdo. Pedro Nieves Miranda
Presidente
Junta de Calidad Ambiental
Edif. Agencias Ambientales Cruz A. Matos
Urb. San José Industrial Park
1375 Ave. Ponce de León
San Juan, Puerto Rico 00926-2404

Attention: Division of Public Hearings

Subject: Guidelines for Use of Coal Combustion Waste

Dear licensed Nieves:

Thank you very much for giving us the opportunity to submit comments to the Guidelines for Use of Coal Combustion Residues proposed by the Environmental Quality Board. Products derived from coal combustion for electricity generation in Puerto Rico are products that have proven useful for use and, in effect, are used in an environmentally safe in Puerto Rico. As AES Puerto Rico, LP reiterates its support for the proposed Guidelines for environmentally safe use and proper management of waste and by-products of coal combustion in Puerto Rico.

Multiple studies by recognized academic and professional institutions confirm the environmentally safe use of waste and by-products of coal combustion, most recently in June 2012 by the prestigious toxicologist Dr. Lisa Bradley. In this study entitled "Coal Ash Material Safety A Health Risk-Based Evaluation of Coal Ash USGS Data from Five U.S. Coal Power Plants", published by the American Coal Ash Association, Dr. Bradley assessed a report published by the Geological Survey United States (USGS for its acronym in English) in the reporting concentrations of metals and inorganic substances found in coal combustion residues of five plants in the United States. After evaluated the concentrations of metals and inorganic published by the USGS, Dr. Bradley compared these concentrations with risk levels developed by the Environmental Protection Agency for residential soils and sensitive groups exposed over a lifetime concluding that residues from coal combustion not only should not be classified as hazardous from the regulatory point of view, but also should not be classified as hazardous from the point of view of human health risk.

In support of the proposed guidelines and pursuant to Public Notice of June 12, 2012, whereby the JCA invited to submit comments on the adoption of the Guidelines for Use of Coal Combustion Waste, AES Puerto Rico has a good submitted before this Honorable Panel as annexed to this presentation, a copy of Dr. Bradley study referred to above, and a copy of the most relevant studies by recognized academic and professional entities to which we referred earlier.

Additionally, then submit the following comments for consideration, which we understand to provide greater clarity of the Guidelines:

1) Section 4.0 - Definitions - Definition Include Added Manufactured in Section 4.0 on "Definitions".

For purposes of clarity and that in view of Section 1.0 on "Background" refers to the term aggregate manufactured, it is suggested that such term is defined in a new Section 4.1 as follows:

Manufactured aggregate - For purposes of this guide, refers to a material that is a mixture of bottom ash and light ash generated in coal combustion for electricity generation, which is hydrated and allowed to cure for a period time to be used according to the uses permitted in these Guidelines.

2) Section 4.2 - Definition of Groundwater - Delete the last sentence of the definition of groundwater.

The concern which are referenced in the last sentence of the definition of groundwater: "Because groundwater is a source of drinking water, there is growing concern about agricultural leachate contamination, industrial pollutants or leaking tank underground storage "should not be part of the definition, as it has the effect of defining the term.

3) Section 4.13 - Definition of Hazardous Waste

To avoid confusion and inconsistency, it is suggested that the definition is limited to a reference to the definition of Hazardous Waste Regulations for the Control of Hazardous Waste Environmental Quality Board and the definition of Hazardous Waste regulations Agency Environmental Protection under Subtitle C of the Resource Conservation and Recovery Act, RCRA known by its acronym in English.

4) Section 4.14 - Definition of Solid Waste

To avoid confusion and inconsistency, it is suggested that the definition is limited to a reference to the definition in the Solid Waste Management Regulations of nonhazardous solid waste.

5) Section 4.21 - Definition of residues from coal combustion

Include phrase "including without limitation, light ash and bottom ash" at the end of the definition. Obviously Guides cover light ash, heavy ash and aggregate manufactured. As suggested at the end of the definition of "coal combustion residues" adding the phrase "including without limitation, light ash and bottom ash."

6) Section 5.1 - Requirements for generators of coal combustion residues (CCR)

Because a RCC can be sold as a product, include the selling concept and product in the context of Section 5.1 to read as follows:

All persons or entities that generate RCC and who intend to offer for sale, or otherwise meet other people or entities thereof, to be used as a product or material rather than that they are prepared or handled as waste must demonstrate to the Board that such waste at all times comply with the requirements for graduation from the current federal and state regulation of hazardous waste. In addition, they must obtain a certification from the JCA, before considering the sale or delivery of the same feedstock or product for construction.

7) Section 5.2.1 (e) - Monthly Fuel Type

The second sentence of this Section 5.2.1 (e) requires the generator RCC certificate to notify the JCA "any change in the combustion process and its replacement by another with a different specification." For purposes of clarity regarding changes in fuel type which by definition refers to coal, it is suggested that the second sentence of Section 5.2.1 (e) is amended to read as follows:

Be required to be notified to the Board any other fuel replacement with a different specification or change in the combustion process that has or may have the effect of significantly altering the composition and characterization of RCC.

8) Section 5.2.1 (j) - Estimated Number of Percentage of RCC to be reused

Given the fact that RCC can be used directly, such as agent for solidifying liquid wastes in landfill systems, besides its use as raw material in other processes or to produce another product, it is suggested that this Section 5.2. 1A (j) is amended to the information required in the initial certification request includes not only the estimated percentage of the amount of RCC expected to be reused as raw material in the production of a third product, but also includes the the estimated percentage amount of RCC is expected to be reused directly as product. This change is consistent with Section 1.0 which states that as much light ash bottom ash are considered materials or ingredients that can be used as effective substitutes for commercial products. As suggested amending Section 5.2.1a (j) to read as follows:

An estimated percentage of the amount of the RCC expected to be reused as a product and / or as raw material in the production of a third product in Puerto Rico.

9) Section 5.2.1B (c) - Project Goals and Objectives

This request for information is given in the context of the Quality Control Plan and Certainty required as part of the Certification of RCC and generators not defined the term "project", it is not clear what is meant by "goals and project objectives. " It suggests amending this prayer that the requirement to RCC is the generator of the proposed uses of RCC as allowed by the Guidelines.

10) Section 5.2.1 B (e) - Chemicals in RCC

To maintain consistency with the characterization of RCC required under Section 5.2.1B (f) and Table 3, it is suggested to amend this Section 5.2.1 B (e) for the Control Plan and Quality Assurance to be subjected by the generator RCC, are regarded as the characterization parameters required in paragraphs (d) and (f) of this Section 5.2.1 B. As Section 5.2.1 suggests that B (e) read as follows:

This plan should consider the parameters listed in Table 3 as provided in paragraphs (d) and (f) of this Section 5.2. 1 B (e), their concentrations and changes in concentration of these and the risks to health and the environment associated with their use.

11) Section 5.2.1 B (f) - characterization results by chemical analysis

According to this Section 5.2.1 reads B (f), once submitted the initial characterization of RCC for certification, whenever there is a change in the process of combustion or fuel used by insignificant, the generator would required to submit a new characterization of RCC (beyond that required for initial certification and beyond that required under Section 6.1 and Section 6.4 below). It is suggested that the second sentence of paragraph "f" in Section 5.2.1 B, adding the word "significant" after the word "change" to reflect that the characterization results are presented for certification when significant changes occur in the combustion process in the fuel or used that may have the effect of varying the characterization significantly and not necessarily "every time there is a change" for the change is insignificant. It is therefore suggested that paragraph "f" read as follows:

Results of the characterization of the RCC by chemical analysis. The characterization results are presented for certification and whenever a significant change occurs in the combustion process or the fuel used. See Table 3.

12) Section 5.2.1 B (f) (2) - Characterization of the RCC

By using the phrase "" but not limited to "in paragraph" 2 "of Section 5.2.1 B (f), it is unclear what other analytical methods would have to use the RCC generator to meet the requirement. For

purposes of clarity, it is suggested to delete the phrase "without limitation" and is replaced by the update approved by the Environmental Protection Agency of the methods identified in paragraph, namely "TCLP", "SPLP" and "Total Metals". Thus, it is certain of the analytical methods to be used and any other method approved by the Environmental Protection Agency under the SW-846 should be used by RCC Builder without having to update the guidelines. It is suggested that paragraph read as follows:

> *Analytical methods for evaluating this criterion should be: TCLP SW-46-1311, modified TCLP (EPA 1311, ASTM D3987-85) and / or "Synthetic Precipitation Leaching Procedure (SPLP 1312) and Total Metals" SW6010. In addition, other methods must implement these updated as approved by the Environmental Protection Agency (under the SW-846) to identify any parameter indicator that can be used to monitor water quality and / or air. The analytical information obtained should be sufficient to evaluate the potential impact to the environment and human health. (The use of "Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites" adopted by the Environmental Protection Agency.)*

13) Section 6.1 - Requirements for Maintaining Certification

Section 6.1 states that certification RCC Builder is conditioned on the JCA generator to provide a quarterly report containing the analytical results of two (2) representative samples of each of the RCC generated during normal operation of the facility and any other analysis performed for the purpose of monitoring changes or variations in the concentration of the parameters in Table 3. In view of the requirement to notify a change in operations or in the combustion process that may impact the characterization of RCC, it is suggested that the report required in this Section 6.1 is an annual, rather than quarterly. Ie annual instead of quarterly.

14) Section 6.4 - Changes in materials used or in the Combustion Process

As happens in Section 5.2.1 A (e), it is suggested that the notification is required in case the change in the materials used or in the combustion process can impact the characterization of the RCC. The criterion of "any change" is very broad and exposes the RCC to notify Builder daily operational changes for minor and insignificant that they are related to the characterization of the RCC. As suggested criterion is established as the guide for those notification generator significant changes in the materials used or in the combustion process that may have an impact on the characterization of the RCC. It is suggested that this Section 6.4 is amended to read as follows:

Of any significant changes occur in the materials used or the combustion process that may have an impact on the characterization of RCC, RCC Builder shall immediately notify the Board and submit a monitoring strategy to show that such changes do not cause RCC exceed the standards of Table 3. In this case, if any of the standards based on high pollution levels (eg aluminum, iron, manganese, silver and zinc) exceeds the values in Table 3, the certification shall be subject to the

generator scientifically demonstrated that the use of RCC at these levels does not negatively impact air quality, surface water or groundwater.

15) Section 13.0 - Management Standards, Prohibitions, Design and Construction

In order to make it clear which projects apply the restrictions set forth in Section 13.0, it is suggested to add an introductory paragraph in Section 13.0 to indicate that restrictions of location and design and construction standards apply to the permitted uses involving the use of RCC in road foundations, sub-bases, paving and use as a filling material in structural applications and embankments:

For permitted uses involving the use of RCC in road foundations, sub-bases, paving and fill material in structural applications and embankments implement the following:
01.13 Restrictions Location ...

Again we appreciate the opportunity provided by the JCA to submit these comments and pursuant to the important and necessary public policy of recycling and reuse of materials taken in Puerto Rico, we ask that after consideration of public comments, kindly approve the Guidelines for appropriate use and waste products from the combustion of coal in Puerto Rico.

Sincerely,

Neil Watlington
Vice-president